

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

COMCAST CABLE
COMMUNICATIONS, LLC, TV WORKS,
LLC, and COMCAST MO GROUP, INC.,
Plaintiffs,

v.

CIVIL ACTION

NO. 12-859

SPRINT COMMUNICATIONS
COMPANY, LP, SPRINT SPECTRUM,
LP, and NEXTEL OPERATIONS, INC.,
Defendants.

SPRINT COMMUNICATIONS
COMPANY, LP, and SPRINT
SPECTRUM, LP,
Counterclaim-Plaintiffs,

v.

COMCAST CABLE
COMMUNICATIONS, LLC, COMCAST
IP PHONE, LLC, COMCAST BUSINESS
COMMUNICATIONS, LLC, and
COMCAST CABLE COMMUNICATIONS
MANAGEMENT, LLC,
Counterclaim-Defendants.

DuBois, J.

April 1, 2014

**MEMORANDUM REGARDING APPOINTMENT OF TECHNICAL ADVISOR AND
PROPOSED TERMS AND CONDITIONS OF APPOINTMENT**

This is a patent action involving eight U.S. patents: U.S. Patent No. 6,885,870; U.S. Patent No. 5,987,323; U.S. Patent No. 5,991,271; U.S. Patent No. 6,754,907; U.S. Patent No. 6,757,907; U.S. Patent No. 7,602,886; U.S. Patent No. 7,054,654; and U.S. Patent No. 6,727,916.¹ These patents involve a diverse array of technologies and implicate scientific and

¹ The original claims and counterclaims involving the following patents no longer remain in the case: U.S. Patent No. 7,684,391, U.S. Patent No. 6,112,305; U.S. Patent No. 7,043, 241;

mathematical concepts “well beyond the regular questions of fact and law with which judges must routinely grapple.” *Reilly v. United States*, 863 F.2d 149, 158 (1st Cir. 1988). This Memorandum and Order covers the appointment of Dr. A. J. Nichols as Technical Advisor in this case and the proposed terms and conditions of his appointment.

A district court judge has inherent authority to appoint a technical advisor “where the trial court is faced with problems of unusual difficulty, sophistication, and complexity” provided that the judge deems it desirable and necessary. *See TechSearch, L.L.C. v. Intel Corp.*, 286 F.3d 1360 (Fed. Cir. 2002). Unlike a court-appointed expert, “a technical adviser provides assistance privately outside of the hearing of the parties, and [is] not subject to cross examination.” Robert C. Kahrl, *Patent Claim Construction* 7-56.1 (2002 Supp.). The role of a technical advisor is not to “usurp the role of the judge by making findings of fact or conclusions of law,” but “to organize, advise on, and help the court understand relevant scientific evidence.”² *Fed. Trade Comm'n v. Enforma Natural Prods.*, 362 F.3d 1204, 1213 (9th Cir. 2004); *see also id.* (“A technical advisor is a tutor who aids the court in understanding the ‘jargon and theory’ relevant to the technical aspects of the evidence.”). Because “[a] technical advisor, by definition, is called upon . . . to supply no evidence,” a court may not cite, or otherwise rely upon, a technical advisor’s tutelage as a source of evidence for its rulings. *Reilly*, 863 F.2d at 156; *see also id.* at 158 (noting that the district court properly based its “decision . . . on the evidence submitted by

and U.S. Patent No. 6,965,666.

² Dr. Nichols cogently described the role of a technical advisor in his *Guidelines for Neutral Experts to the Court*: “The primary use of this type of expert is to help the judge understand the technology. Your job is essentially to be a teacher with a class of one (or two if the judge’s law clerk is involved). It is usually best to start with broad concepts, narrow down to specifics only when necessary, and recognize that you may have to explain something a number of times before you hit on the right way to explain it. These discussions are most frequently carried out privately in chambers.” A. J. Nichols, *Guidelines for Neutral Experts to the Court* § 1.2 (2010), available at <http://neutralexpert.com/GuidelinesForNeutralExpertsToTheCourt.pdf>.

the parties” – or, rather, lack thereof – and “not [on] any new facts or theories introduced by the technical advisor” (quoting *Hemstreet v. Burroughs Corp.*, 666 F. Supp. 1096 (N.D. Ill. 1987), *rev'd on other grounds*, 861 F.2d 728 (Fed. Cir. 1988)).

“The essence of [a technical advisor’s] engagement requires that the judge and the advisor be able to communicate informally, in a frank and open fashion.” *Id.* at 160 n.8; *see also id.* (noting “the freewheeling nature of the anticipated discourse”); Joshua R. Nightingale, *An Empirical Study on the Use of Technical Advisors in Patent Cases* 93 J. Pat. Trademark Off. Soc'y 400, 404 (2011) (“Judges and technical advisors are expected to communicate informally, allowing for flexibility and candor.”). Thus, rather than “testify in open court,” technical advisors “largely function behind the scenes and provide information in an ex parte basis, typically off-the-record.” Nightingale, *supra*, at 412, *see also Papyrus Tech. Corp. v. N.Y. Stock Exch., LLC*, No. 04-cv-625, slip op. at 1 (S.D.N.Y. April 6, 2009), ECF No. 147 [hereinafter Order, *Papyrus Tech. Corp.*]; *Parkervision, Inc. v. Qualcomm Inc.*, No. 11-cv-719, slip op. at 2 (M.D. Fla. Sept. 10, 2012), ECF No. 162; *DataTreasury Corp. v. Ingenico S.A.*, No. 02-cv-124, slip op. at 2 (E.D. Tex. May 8, 2003), ECF. No. 87; *Techsearch L.L.C. v. Intel Corp.*, No. 98-cv-3484 (N.D. Cal. Nov. 9, 1999), ECF No. 180 [hereinafter Order, *TechSearch*], *aff'd*, 286 F.3d 1360; Code of Conduct for U.S. Judges, Canon 3(4) (“A judge may . . . initiate, permit, or consider ex parte communications as authorized by law.”).

The Court is mindful that such appointments “should be used sparingly and only in highly complicated cases.” *Reagents of the U. of Cal. v. Micro Therapeutics Inc.*, No. 03-cv-05669, 2006 WL 1469698, at *1 (N.D. Cal. May 26, 2006) (citing *TechSearch*, 286 F.3d at 1378). This is such an “extraordinary case[] where the introduction of outside skills and expertise, not possessed by the judge, will hasten the just adjudication of a dispute without

dislodging the delicate balance of the juristic role.” *See TechSearch*, 286 F.3d at 1378. The eight patents at issue involve wide-ranging and highly technical concepts, the vast majority of which are unfamiliar to the Court.

The technical and highly complex nature of the patents-in-suit already has necessitated a pre-*Markman* and *Markman* hearing lasting five days, which included technology tutorials presented by counsel for the parties on each of the eight patents. At several points during this hearing, the Court noted its unfamiliarity with the technology presented. Accordingly, upon consideration of the materials provided by the parties and after having the benefit of tutorials on each of the patents and oral argument on claim construction, the Court concluded that it would be beneficial to have the assistance of a technical advisor prior to rendering its claim construction rulings given the complex and technical nature of the patents-in-suit.

At the conclusion of the fifth day of the *Markman* hearing on February 26, 2014, the Court advised the parties of its intention to appoint a technical advisor or advisors. By Order of that same date, the Court directed the parties to meet and confer for the purpose of jointly recommending a technical advisor(s) to advise the Court on claim construction issues and to jointly report to the Court on or before March 12, 2013 with respect to that selection. On March 12, 2014, the parties submitted a Joint Report Recommending A.J. Nichols, Ph.D. as Technical Advisor on Claim Construction Issues (Document No. 137, filed March 12, 2014) for each of the patents-in-suit. The Court, after discussing the case with Dr. Nichols by telephone, concluded that he is completely neutral and has the background and qualifications necessary to address the technical issues in this case. Accordingly, by Order dated March 20, 2014, the Court appointed Dr. Nichols as Technical Advisor on claim construction issues in this case. Dr. Nichols’s resume is hereto attached as Exhibit A.

It is well settled that Federal Rule of Civil Procedure 706, which “establishes a procedural framework for nomination and selection of an expert witness and for the proper performance of his role after an appointment is accepted (e.g., advising the parties of his findings, submitting to depositions, being called to testify, being cross-examined),” does not govern a technical advisor’s appointment. *Reilly*, 863 F.2d at 156. As recognized by the U.S. Court of Appeals for the First Circuit, “[b]y and large, these modalities — though critically important in the realm customarily occupied by an expert witnesses — have marginal, if any, relevance to the functioning of technical advisors.” *Id.*

The circuits that have spoken to the issue of whether any specific procedural safeguards must necessarily accompany a technical advisor’s appointment have not “required[] strict adherence to any specific procedures” to ensure “that the advisor’s work is done within the proper parameters.” Fed. Jud. Ctr., *Patent Case Management Judicial Guide* § 8-25 (2009); *Enforma*, 362 F.3d at 1214; *Reilly*, 863 F.2d at 159-60. The Court, however, is acutely sensitive to and has carefully considered the due-process concerns posed by the appointment of such an advisor. Thus, the Court gives notice to the parties that the Court intends to self-impose the following terms and conditions on Dr. Nichols’s appointment³:

1. Dr. Nichols’s role shall be limited to assisting the Court in understanding the technology applicable to the patents-in-suit and to “act[ing] as a sounding board” for the Court to “think through the critical technical problems.” *Reilly*, 863 F.2d at 158. The Court also may ask Dr. Nichols to review drafts of its memoranda and orders for technical accuracy. *See, e.g.*, Order

³ *See, e.g., Abbott Pt. of Care, Inc. v. Epochal, Inc.*, No. 08-cv-543, slip op. at 2 (N.D. Ala. Nov. 25, 2008), ECF No. 57 (“The following procedural safeguards are self-imposed, to assure the parties that the Technical Advisor does not exercise undue influence on the court or its decision-making process, and that his role is limited to tutorial assistance and providing technical education and background information in the relevant technology.”).

at 1, *Papyrus Tech. Corp.* As with counsel's explanation of the technology at issue in the case, the Court will not consider Dr. Nichols's statements to be intrinsic or extrinsic evidence in support of its claim construction rulings.

2. Dr. Nichols may review any documents of record in this case and may attend any future court proceedings. In the event that Dr. Nichols deems it appropriate to independently consult any extra-record materials, he shall first seek Court approval to do so. Any such extra-materials independently consulted by Dr. Nichols shall be identified for the parties by the Court.

3. Dr. Nichols shall not (1) brief the Court on legal issues, (2) render conclusions of law, (3) engage in any independent investigation of the legal issues involved in the case, or (3) be called as a witness. Further, Dr. Nichols shall be "vigilant about keeping any opinions [as to the merits of the parties' legal arguments] out of [his] explanations." A. J. Nichols, *Guidelines for Neutral Experts to the Court* § 3.1 (2010), available at <http://neutralexpert.com/GuidelinesForNeutralExpertsToTheCourt.pdf>.⁴

4. Dr. Nichols's communications with the Court shall be *ex parte*. Dr. Nichols shall "respond *ex parte* to the Court to questions concerning technical or scientific terminology or theory in a manner consistent with his best understanding of relevant, generally accepted scientific knowledge." Order, *TechSearch*. In the unlikely event that the Court asks Dr. Nichols to prepare any formal written report on the technical aspects of the case, the Court will provide a copy to the parties, with the exception of instances where the Court has requested Dr. Nichols to comment in such form on the technical accuracy of the Court's language in drafts of its memoranda and orders.

⁴ "For example, [Dr. Nichols] may certainly explain how something works but should be careful about expressing any [legal] consequences that [he] think[s] might result out of its operation." Nichols, *supra* § 3.1.

5. Dr. Nichols has no ideological, financial, or professional interest in the outcome of the litigation. Nor shall he use or seek to benefit from any confidential information that he may acquire in the course of this employment. Should Dr. Nichols become aware of any conflict or potential conflict, he shall inform the Court immediately. In such event, the Court will inform the parties and seek their comments.

6. Dr. Nichols has read the Stipulated Protective Order submitted to him by the parties and has agreed to be bound by all of its provisions. *See Exhibit B.* Except as may be ordered by this Court, Dr. Nichols's communications with the Court and any information shown or provided to him by the Court in connection with this litigation are to be treated as confidential. Communications about any aspect of this case between himself and the Judge and/or the Judge's law clerks and staff are confidential and shall never be disclosed to or discoverable by any other person or party, unless this Court orders otherwise. *See Order at 2, Payprus Tech.Corp.*

7. Dr. Nichols shall have no contact with any of the parties or any of the parties' experts, consultants, or counsel, without first obtaining Court approval. Should any of these individuals contact Dr. Nichols for any reason – other than to provide payment as set forth below – or should any other person seek to communicate with him about this litigation, he shall inform the Court immediately of all facts and circumstances concerning such contact. Dr. Nichols shall not seek to communicate with any individual about the case other than the Judge and/or the Judge's law clerks and staff, absent express Court permission.

8. Upon joint consent of the parties, Dr. Nichols shall be compensated at a rate of \$500 per hour and be reimbursed for all reasonable expenses, including travel costs. Each side shall pay fifty percent of Dr. Nichols fees and expenses. Dr. Nichols shall keep detailed records of his time and expenses and shall submit a monthly statement to the Court showing the hours

expended. After review and approval, the Court will submit these invoices to counsel for the parties, who shall take responsibility for ensuring that payment is made within forty-five days after receipt of each invoice. Invoices that are unpaid after forty-five days of receipt shall be subject to a late fee of two percent and shall incur interest at the rate of eighteen percent per annum from then until paid. Each side has paid a refundable retainer in the amount of \$5,000 to be applied to final billings. Any unapplied portion of the retainers shall be refunded at the conclusion of Dr. Nichols's engagement.

9. Dr. Nichols shall promptly execute an affidavit, *see* Appendix C, stating that he understands and shall abide by the terms and conditions of his appointment. After the completion of his engagement, Dr. Nichols shall execute an affidavit, *see* Appendix D, affirming his compliance with the Court's final Memorandum and Order setting forth these terms and conditions.

Although the Court is not compelled by law to permit the parties to lodge written objections to the terms and conditions of Dr. Nichols's appointment,⁵ the Court deems it appropriate to do so in this case out of an abundance of caution and to provide the parties with additional procedural protection. Any objection to the proposed terms and conditions of Dr. Nichols's appointment must be submitted to the Court by letter to Chambers within seven days of the entry of this Memorandum and Order. Upon receipt of any objections, the Court will confer with the parties to determine if any modification to the terms and conditions of Dr.

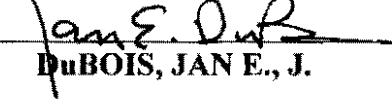
⁵ See *Reilly v. United States*, 863 F.2d 149, 161 (1st Cir. 1988) (noting that "it [is] advisable . . . that the parties be notified of the expert's identity before the court makes the appointment, and be given an opportunity to object on grounds such as bias or inexperience," but making no such provision for an opportunity to object to an advisor's "written 'job description'"). The parties themselves proposed Dr. Nichols's appointment as Technical Advisor and the parties already have been given an opportunity to orally object to the proposed terms and conditions of the appointment as set forth in this Memorandum and Order.

Nichols's appointment is appropriate. A final Memorandum and Order will issue after the Court addresses and resolves any such objections.

ORDER

And now, this 1st day of April, 2014, following a telephone conference with the parties, through counsel, and A. J. Nichols, Ph.D., on March 25, 2014, **IT IS ORDERED** that the parties are granted leave to object to the proposed terms and conditions of Dr. Nichols's appointment as Technical Advisor, as stated in this Memorandum and Order dated April 1, 2014, by letter to Chambers (Room 12613) within seven (7) days.

BY THE COURT:



DuBOIS, JAN E., J.

APPENDIX A

PROBITAS

PROBITAS® CORPORATION
1958 Vallejo Street, #9
San Francisco, CA 94123-4976
Telephone (415) 441-2990
AJN@NeutralExpert.com
www.NeutralExpert.com

A. J. NICHOLS, Ph.D.

SUMMARY

Broad technical experience in all aspects of computer engineering: software, firmware, hardware, and management. Emphasis on architecture, operating systems, telecommunications, and microprocessor-based design. Serves as a Special Master, neutral expert, mediator, and arbitrator in trade secret, patent, and other intellectual property litigation.

EDUCATION

Ph.D., Electrical Engineering, Stanford University
M.S., Electrical Engineering, Stanford University
B.S., Electrical Engineering, University of Colorado (with honors)
B.S., Business Management, University of Colorado (with special honors)
Mediation Workshop, Harvard Law School.

PROFESSIONAL ORGANIZATIONS

Fellow of the Academy of Court-Appointed Masters
Institute of Electrical and Electronic Engineers
Association for Computing Machinery

ARBITRATION AND MEDIATION PANELS

Commercial Arbitration Panel and Technical Mediator, American Arbitration Association
Mediator, ADR Program of the United States District Court, Northern District of California
Appellate Mediation Program, Court of Appeal, First Appellate District of California
Mediator, Peninsula Conflict Resolution Center

PROFESSIONAL EXPERIENCE

PROBITAS CORPORATION

President and Founder: Probitas is a consulting firm established to provide sophisticated capabilities in computer engineering. Some specific assignments have included:

- Serving as a Special Master and neutral expert to U.S. District Courts in cases such as *RIAA v. Napster*, *Sun v. Microsoft* and *Cadence v. Avant!*, to the Supreme Court of Singapore in *Creative Technology v. Aztech Systems*, and in other forums.
- Serving as a neutral evaluator to the parties in *Cisco v. Huawei*, *Niku v. Business Engine Software*, *SAT Corporation v. Zeta Technologies* and other matters.
- Analyzing and modifying operating systems, especially Windows, MS-DOS, and OS/2
- Developing products such as a web-based personnel resource program, a hand-held GPS receiver, a remote security system, a Hayes-compatible modem, and a data collection system.
- Programming in a multitude of languages including C, C++, Java, HTML, Assembly Language, FORTRAN, PASCAL and COBOL.
- Creating a new approach to UPC scanning
- Correcting design errors in disk controllers and memory boards

- Writing device drivers
- Assistance in the design of instruments for the analysis of data communications
- Designing adapter boards for the PC and PS/2 families
- Serving as a technical expert in litigation as an expert witness and consultant.
- Auditing the development process and status of products for CEOs, venture capitalists, and in mergers

MILLENNIUM SYSTEMS, INC.

Millennium Systems was a developer and manufacturer of microprocessor-based design, test, and service instrument products.

Vice President and Division Manager, Test Products. P&L responsibility for this business. Responsible for and managed marketing and development for the line of hardware and software test products. Also provided corporate-wide engineering services and product engineering.

Vice President, Engineering. Responsible for the hardware and software development of the company's products. Developed and managed a department of over 50 people involved in product design, software engineering, drafting, document control, and sustaining engineering. Responsible for the cost-effective and timely release of more than 25 products into manufacturing and for providing technical support to marketing, sales, and operations.

INTEL CORPORATION

Engineering and Strategic Business Segment Manager, Instrument and Test Systems. Responsible for the development and management of a new operation engaged in the design and marketing of a microprocessor test instrument.

Manager, Peripherals Engineering. Established a consolidated department and assumed responsibility for product planning, circuit design, and related software development of all microprocessor peripheral integrated circuits. These included floppy disk controllers, data communications chips, and game controllers.

Manager, Microcomputer Applications/Publications. Planned and established these new functions to provide product and systems applications information, coordinate Field Application Engineer activities, and develop reference manuals and other publications for the Microcomputer Division.

AMERICAN MICROSYSTEMS, INC.

Director of Engineering, Industrial Products. Responsible for the development of standard product software, integrated circuits, and systems. Managed a staff of 25 in logic design, circuit design, software development, and product engineering. Completely reorganized and restaffed operation. Developed cost and project control systems and procedures.

NOVAR CORPORATION/GTE INFO SYSTEMS

Director of Systems Development; Director of Product Planning. Member of founding group for this computer terminal company which was merged into GTE. Responsible for the development of new product specifications, electronic design, software support, and overall systems considerations. Controlled all digital communication methods and protocols.

LOCKHEED MISSILES & SPACE COMPANY

Research Scientist. Conducted applied research and development in operating systems and file management. Developed timesharing monitors, data base management systems, spooling systems, and associated utilities. Performed original research in switching theory and digital system design.

PATENTS

- 3,678,462 - "Memory for Storing Plurality of Variable Length Records."
- 4,119,955 - "Circuit for Display, Such as Video Game Display."
- 5,170,470 - "Integrated Modem Which Employs a Host Processor as its Controller." Also issued as European Patent 0340613.

PUBLICATIONS

"Primer for Lawyers: Computer Technology and the Expert," in **Corporate Counsel's Guide to LAW DEPARTMENT MANAGEMENT** (Second), Business Laws, Inc., Chesterland, Ohio, 1995.

"Basic Computer Terminology for Lawyers" (Video Tape), Practicing Law Institute, 810 Seventh Avenue, New York, NY, 1985.

"An Overview of Microprocessor Applications," Proceedings of the IEEE, Vol. 64, No. 6, June 1976, pp. 951-953.

"Minimal Shift Register Realizations of Sequential Machines," IEEE Trans. on Electronic Computers, Vol. EC-14, Oct. 1965, pp. 688-700.

"State Assignments in Combinational Networks," with A. J. Bernstein, IEEE Trans. on Electronic Computers, Vol. EC-14, Oct. 1965, pp. 343-349.

"Multiple Shift Register Realizations of Sequential Machines," Ph.D. Dissertation, Stanford University. Also published as Technical Report 6-74-64-48, Lockheed Missiles & Space Co., Sunnyvale, CA, October 1964.

"Comments on Armstrong's State Assignment Techniques," IEEE Trans. on Electronic Computers, Vol. EC-12, August 1963, pp. 407-408.

"Thin Film Technologies for Space Electronic Components," with W. D. Fuller, PGSET Record of the 1962 National Symposium on Space Electronics and Telemetry, Oct. 1962, pp. 8.2-8.16.

"Distributed Parameter Circuit Design Techniques," with P. S. Castro and H. F. Kaiser, Space/Aeronautics R&D Handbook, 1962.

PRESENTATIONS

"Serving as a Neutral Expert", Forensic Expert Witness Association, San Francisco Chapter, Oakland, CA, April 15, 2009

"The Non-Attorney Technical Master", Annual Meeting of the Academy of Court-Appointed Masters, Phoenix, AZ, January 31, 2009

"A View of IP Litigation from an Expert Witness and Neutral", Silicon Valley Association of General Counsel 2008 All Hands Meeting, San Jose, CA, December 4, 2008

"The Special Master as a Computer Technology Expert," in the American Law Institute of the American Bar Association course "The Art and Science of Serving as a Special Master in Federal and State Courts," Washington, DC, November 2, 2007

"The Manger's Nightmare: Technical Litigation", IEEE Engineering Management Society, Santa Clara Valley Chapter, Santa Clara, CA, October 30, 2002

"The Effective Use of Court-Appointed Neutral Experts in Technology Cases," with The Honorable Susan Illston, Alan MacPherson, Esq. and Norma Formanek, Esq., Northern California Chapter of the Association of Business Trial Lawyers, San Francisco, CA, June 13, 2000.

"Beyond MIDI," The Twentieth Annual Asilomar Microcomputer Workshop, Asilomar, CA, April 20, 1994.

"Introduction to Computers for Lawyers," Practicing Law Institute, New York, NY, February 25, 1985, September 18, 1986, and November 3, 1988.

"Effective Use of Expert Witnesses, An Expert's View," Practicing Law Institute, New York, NY, November 4, 1988.

"The Evolution of the Microcomputer," CACDP Fall Conference, Santa Cruz, CA, October 29, 1976.

"Microprocessor Update, 1975, IEEE Intercon 75, April 8, 1975.

"A Microprogrammable Framework for Experimental Machine Design," 2nd Annual Symposium on Microprogramming, Phoenix, AZ, October 1969.

"Modular Synthesis of Sequential Machines," 6th Annual Symposium on Switching Circuit Theory and Logical Design, University of Michigan, October 1965. Appears in the Proceedings, pp. 62-70.

"Thin Film Integrated Components for Telemetry Subsystems," with W. D. Fuller, 18th Annual National Electronics Conference, Chicago, IL, October 1962. Appears in the Proceedings, Vol. 18, pp. 669-684.

"Distributed Parameter Circuit Design Techniques," with P. S. Castro and H. R. Kaiser, WESCON, Los Angeles, CA, August, 1962.

REVIEWS

"Contemporary Concepts of Microprogramming and Emulation," by Robert F. Rosin, Computing Reviews, Vol. 11, No. 12, December 1970, p. 682.

"The IBM 360/195," by J. O. Murphey and R. M. Wade, Computing Reviews, Vol. 11, No. 9, September 1970, p. 535.

"On Asymptotic Estimates in Switching and Automata Theory," by Michael A. Harrison, Computing Reviews, Vol. 7, No. 4, July-August 1966.

"Time-Varying Sequential Machines," by A. Gill. IEEE Trans. on Electronic Computers, Vol. EC-14, February 1965, p. 90.

SPECIAL ACTIVITIES

Lectured at Stanford University in the graduate departments of Electrical Engineering and Computer Science.

Chaired the Special Interest Group on Microprogramming in the ACM.

Served as an ACM National Lecturer.

AVOCATIONS

Skiing, golf, scuba diving

See www.NeutralExpert.com for more information

APPENDIX B

EXHIBIT A

UNITED STATES DISTRICT COURT FOR THE
EASTERN DISTRICT OF PENNSYLVANIA

COMCAST CABLE COMMUNICATIONS,)
LLC; TVWORKS, LLC; and COMCAST MO)
GROUP, INC.,)
Plaintiffs,)
v.) Civil Action No.: 2:12-cv-00859-JD
SPRINT COMMUNICATIONS COMPANY)
L.P.; SPRINT SPECTRUM L.P.; and)
NEXTEL OPERATIONS, INC.,)
Defendants.)

SPRINT COMMUNICATIONS COMPANY)
L.P. and SPRINT SPECTRUM L.P.,)
Counterclaim-Plaintiffs,)
v.)
COMCAST CABLE COMMUNICATIONS,)
LLC; COMCAST IP PHONE, LLC;)
COMCAST BUSINESS)
COMMUNICATIONS, LLC; and COMCAST)
CABLE COMMUNICATIONS)
MANAGEMENT, LLC,)
Counterclaim-Defendants.)

ACKNOWLEDGMENT REGARDING STIPULATED PROTECTIVE ORDER

I, A. J. Nichols, hereby declare that:

1. I have received a copy of the Stipulated Protective Order in the above-captioned action. I have carefully read and understand the provisions of the Stipulated Protective Order.

2. I agree that I will be bound by and will comply with all provisions of the Stipulated Protective Order in my treatment of Designated Material marked or otherwise indicated to me to be "Confidential," "Confidential – Outside Attorneys Eyes' Only," or "Confidential Source Code – Outside Attorneys' Eyes Only." I will hold in confidence and will not disclose to anyone any Designated Material, including copies, summaries, abstracts, excerpts, indexes or descriptions thereof, except pursuant to the terms of the Stipulated Protective Order. I agree that I will only use such information for purposes of this action and not for any business or competitive purpose.

3. I will return all Designated Material that comes into my possession, and all documents and things that I have prepared relating to or reflecting such information, to outside counsel for the party by whom I am employed or retained or from whom I received such material within thirty (30) days of termination of this action by settlement or final judgment, including exhaustion of all appeals, or within thirty (30) days of the conclusion of my involvement in the action, whichever is sooner.

4. To the extent I receive and access any material designated "Confidential" or "Confidential – Outside Attorneys' Eyes Only" (other than non-technical information potentially relevant to damages issues and/or settlement negotiations) or "Confidential Source Code – Outside Attorneys' Eyes Only," I agree that I will not myself prepare, or counsel or assist others with the preparation, filing, or prosecution of any patent application on behalf of Sprint or Comcast, or affiliates of either of them, that is in the same patent family of any of the Receiving Party's patents-in-suit in this action (U.S. Patent Nos. 6,885,870, 5,987,323, 6,112,305, 5,991,271, 6,754,907, 6,757,907, 7,602,886, 7,043,241, 7,054,654, 6,727,916, and 6,965,666), including any patent reissue or reexamination proceeding, or any post-grant and/or inter partes review, of any Receiving Party patents-in-suit, for the duration of this litigation and for a period

of three (3) months following termination of this action by settlement or final judgment, including exhaustion of all appeals.

5. I agree to submit to the jurisdiction of this Court for the purpose of enforcement of the Stipulated Protective Order.

6. I state under penalty of perjury that the foregoing is true and correct.

Executed on April 14, 2014.



[Signature]

APPENDIX C

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

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LLC, and COMCAST MO GROUP, INC.,
Plaintiffs,**

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**COMCAST CABLE
COMMUNICATIONS, LLC, COMCAST
IP PHONE, LLC, COMCAST BUSINESS
COMMUNICATIONS, LLC, and
COMCAST CABLE COMMUNICATIONS
MANAGEMENT, LLC,
Counterclaim-Defendants.**

AFFIDAVIT OF ENGAGEMENT OF DR. A. J. NICHOLS

I, Dr. A. J. Nichols, declare under the penalty of perjury under the laws of the United States that I have read, understand and shall abide by the terms and conditions of my appointment, as set forth in the Court's Memorandum and Order dated April ___, 2014, in the above-captioned case in which I have been appointed as Technical Advisor to the Court.

Executed this ___ day of April, 2014.

A. J. Nichols

APPENDIX D

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

COMCAST CABLE
COMMUNICATIONS, LLC, TV WORKS,
LLC, and COMCAST MO GROUP, INC.,
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Counterclaim-Defendants.

**AFFIDAVIT OF DR. A. J. NICHOLS FOLLOWING COMPLETION OF ASSIGNMENT
OF TECHNICAL ADVISOR**

I, Dr. A. J. Nichols, declare under the penalty of perjury under the laws of the United States that, in the course of performing my duties as Technical Advisor in the above-captioned case, I have fully complied with the terms and conditions of my appointment, as set forth in the Court's Memorandum and Order dated April ___, 2014, with the following exceptions, if any:

Executed this ___ day of _____, 2014.

A. J. Nichols